

Z/054/62/000/008/001/004  
E073/E335

AUTHORS: Formánek, Vilem and Mares, Zdeněk, Engineers

TITLE: Verification of the cooling process of a CrNiMo  
steel ingot

PERIODICAL: Hutnické listy, no. 8, 1962, 559 - 562

TEXT: The manufacture of shafts of electric generators of  
100 MW and greater, weighing 100 - 130 t, for which CrNiMo steel

with yield points above  $50 \text{ kg/mm}^2$  is used, requires the use of  
presses with pressures of the order of 10 000 t. Their manu-  
facture in Czechoslovakia is in two stages: casting by ZVIL,  
Pilsen; transportation to NHKG, Ostrava, inside specially  
designed "hot buggies" which retain the ingot in the hot state  
during its transportation, lasting 3-4 days. Before introducing  
these special "thermal bunkers" the ingots were pre-forged in  
Pilsen, then cooled down for transportation in the cold state.  
The first ingot thus cooled developed a longitudinal crack and  
had to be scrapped. This block was then used as an experimental  
material for verifying the progress of the temperature during

Card 1/4

AUTHOR: Mareš, Zdeněk, Ing.

CZECH/34-59-5-15/19

TITLE: Mechanization of Forging Shops in the V. I. Lenin Works  
(Mechanisace kováren v Závodech V. I. Lenina)

PERIODICAL: Hutnické Listy, 1959, Nr 5, pp 457-458 (Czechoslovakia)

ABSTRACT: A manipulator of a handling capacity of 7.5 tons (see photos Figs 1 and 2) was built and put into operation in 1956. It is used exclusively for manipulation of materials being forged. The manipulator runs on rails which are parallel to the axis of forging. The various advantages gained by using this manipulator are enumerated which do not differ greatly from the advantages gained in other Works using similar manipulators. It is mentioned that further forging shops will be equipped with such manipulators. There are 2 figures.

Card 1/1

MARES, V.

Bleaching of edible oils. p. 326.

PRUMYSL POTRAVIN. (Ministerstvo potravinarskeho prumyslu) Prava, Czechoslovakia,  
Vol. 10, no. 6, June 1959.

Monthly list of East European Accessions (EEAI) LC, Vol. 8, No. 11,  
November 1959.

uncl.

MARES, V.

Recent development trends in the food machinery. p. 174.

PRYMSL, POTRAVIN. Praha, Czechoslovakia, Vol. 10, no. 4, April 1959.

Monthly List of East European Accessions (EEAI) LC, Vol. 8, No. 7, July 1959.  
Uncl.

MARES, V.

"Mechanization of production lines in the food industry by using centrifugal separators. p. 581."

PRUMYSL POTRAVIN. Praha, Czechoslovakia. Vol. 9, no. 11, 1958.

Monthly list of East European Accessions (EEAI), LC, Vol. 8, No. 6, Jun 59 unclas

COUNTRY	:	Czechoslovakia	H-2
CATEGORY	:	Chemical Technology--Chemical engineering	
ABS. JOUR.	:	RZKhim., No. 21 1959, No.	75110
BY OR	:	Mares V. [illegible]	
IN	:	Not given	
TITLE	:	The Development of the Chemical Equipment Industry	
ORIG. PUB.	:	Strojirenstvi, 9, No 2. 133-138 (1959)	
ABSTRACT	:	Advances in the design of equipment for the chemical industry in various countries are noted. The author discusses fluidized bed reactors, foam absorbers, extractors, and rotating columns [Rotocel-type extractors?]. Methods for separating solid particles from liquids and gases are discussed together with questions relating to the conversion of exothermal reactions to autothermal (sic) reactions. From author's summary	
CARD:	1/1		

VARES, V.J

Possibilities of material saving in the production of equipment for chemical plants. p. 257. (NOVA TECHNIKA, Vol. 2, No. 9, Sept 1957, Praha, Czechoslovakia)

SO: Monthly List of East European Accessions (EEAL) LC, Vol. 6, No. 12, Dec 1957. Uncl.

CZECHOSLOVAKIA / Chemical Technology. Chemical Products and Their Application. Fats and Oils. Waxes. Soaps. Detergents. Flotation Agents. H-25

Abs Jour: Ref Zhur-Khimiya, No 1, 1959, 2614.

Author : Mares, V. J.

Inst : ~~Not given.~~

Title : Critical Remarks Concerning Zatocila's Publication:  
"Compression of Olive Seeds on Worm Presses".

Orig Pub: Prumysl potravin, 1956, 7, No 10, 463-464.

Abstract: See R. Zh. Khim., 1957, 39543.

Card 1/1

MARES, Vladimir

Continuous curling of synthetic fibers. Tech praca 16 no.9:705.  
707 S '64

MARES, Vladimir

Cooperation between the experts of textile factories and textile machinery factories within the Czechoslovak Scientific Technical Society. Tech praca 15 no.4:311-312 Ap '63.

1. Strojintex, Liberec.

MARES, Vladimir

Czechoslovak textile machinery industry. Tech praca 15 no.3:  
193-197 Mr '63.

1. Strojintex, Liberec.

CZECHOSLOVAKIA

BLAZEK, J.; MARES, V.; State Institute for Drug Control (Statni Ustav pro Kontrolu Leciv), Prague.

"Analytical Study of Drugs of the Phenothiazine Derivatives Group. III. Gravimetric and Polarographic Determination with Silicotungstic Acid."

Prague, Ceskoslovenska Farmacie, Vol 15, No 7, Sep 66, pp 349-355

Abstract /Authors' English summary modified/: The reaction conditions suitable for gravimetric and polarometric determination of 24 derivatives of phenothiazine and silicotungstic acid were investigated. Optimum conditions for quantitative precipitation are obtained in a 0.1 to 0.5 N-HCl. The stoichiometric ratio of the reagent to that of the base is for derivatives with one active group 1 : 4, with two active groups 1 : 2. For the polarometric determination 20-100 mg of the active substance are dissolved in 20 ml of 0.5N HCl and titrated with silicotungstic acid (0.01M) at - 0.75V against a sat. calomel electrode, using a dropping Hg electrode and a sat. calomel electrode as anodes. Salts of maleinic and fumaric acids are determined at - 0.5 V. 3 Tables, 8 Western, 6 Czech, 1 Polish reference. (Ms. rec. 1 Mar 66).  
1/1

DUMA, D.; SERBAN, M.; POPOVICIU, L.; LAZAR, Tr.; MARES, V.; TARANU, Al.

Histochemical research in various muscular diseases. Stud.  
cercet. neurol. 10 no.3:159-165 Je '65.

BLAZEK, J.; MARES, V.

Current status and perspectives of pharmaceutical education in  
the Soviet Union, Cesk. farm. 13 no.9:452-456 N '64

CONSTANTINESCU, C.; PETRESCU-COMAN, V.; MARES, Viorica; SANIELEVICI,  
Sonia; RUSNA,C.

Interstitial myocarditis of the Fiedler type in sucklings  
and infants. Rumanian med. rev. 7 no.4:68-72 0-D'63.

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(14)

*(S)*

Bucharest, Microbiology Parasitology, Epidemiology,  
Vol VII, No 2, Targuji 1962

1. "The Group of Respiratory Viruses," Academician S. S. HUJAN and Comr. I. GHIAJ; pp 97-109.
2. "The Morphopathology of Respiratory Viral Diseases," Dr. G. MARTINISCU and Dr. V. MIHESI; pp 111-118.
3. "Respiratory Viral Diseases Transmissible from Animals to Man," Dr. D. GHEORGHE and Dr. C. STURDU; pp 119-123.
4. "The Mechanism of Pathogenesis of Some Respiratory Viruses," Dr. N. ROMDOLAI and Dr. I. SAVTEIU; pp 125-131.
5. "The Radiologic Aspect of Viral Respiratory Diseases in the Child," Prof. A. MIHESCU, Dr. I.M. SAVATANU, Dr. Valeriu POPESCU and Dr. G. TAKARESCU; pp 133-140.
6. "Adaptations in the Therapy of Respiratory Viral Diseases," Prof. M.O. SALS; pp 141-146.
7. "Virus Carriers in Respiratory Infections," Dr. Adelina DRĂVICIU; pp 147-151.
8. "Prophylaxis of Influenza," Dr. I. NAFTAI, Dr. M. PETRESCU, Dr. Eugenia ZILIGERMAN and Dr. I. MICHILESCU; pp 153-162.
9. "Conclusions of the International Conference on 'Viral Respiratory Diseases,' Baia Mare, 29-30 September 1961," pp 163-164.

— 14 —

*MAR 25, 1974*

CONSTANTINESCU, G.; PAUN, Florica; MARES, Viorica; in colaborare cu  
DRAGANESCU, N.

Infantile encephalo-pneumonitis caused by a large-sized viral agent.  
Stud. cercet. inframicrobiol. 12 no. 3: 389-394 '61.  
(PNEUMONIA virology) (MENINGOENCEPHALITIS virology)  
(MIYAGAWANELLA)

URSU, A.; QUINTESCU, M.; POPESCU, E.; MARES, V.

Interrelations between leukoses and systemic tumours. Romanian M Rev.

no.3:8-10 J1-S '60.

(LEUKEMIA pathology) (SARCOMA, RETICULUM CELL pathology)

CRACIUN, E., prof.; ZAHARIA, Maria; CONSTANTINESCU, Smaranda; MARES, Viorica  
Histochemical investigations in geriatrics. Romanian M. Rev. 3  
no. 3:21-22 J1-S '59.  
(METABOLISM in old age )

GRACIUN, E., prof.; VELEIU, V.; TASEA, C.; MARES, Viorica

On some biomorphological factors. in geriatrics. Romanian M.  
Rev. 3 no.3:20-21 J1-S '59.  
(GERIATRICS)  
(METABOLISM in the old)

CRACIUN, E., prof.; MARES, Viorica

Alterations of connective tissues related to senescence and the  
pathology of old age. Romanian M. Rev. 3 no.3:18-19 JI-S '59.  
(GERIATRICS, pathology)  
(CONNECTIVE TISSUE, pathology)

CRACIUN, E., prof.; ASIAN, Ana, prof.; DAVID, C.; MARES, Viorica; POPOVICI, M.  
On morbid thanatogenesis in the aged. Romanian M. Rev. 3 no.3:  
16-17 Jl-S '59.  
(GERIATRICS)  
(DEATH)

BIAZEK,J.; MARES,V.

Current tasks and problems of Soviet pharmacy. Cesk.farm.12  
no.9-441-445 N°63.

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CZECHOSLOVAKIA

J. BLAZEK and V. MARES (Affiliation not stated)

"Achievements of Soviet Pharmacy."

Prague, Ceskoslovenska Farmacie, Vol. 11, No. 9, Sept 1962; LF 413-427.

Abstract: A review of the development of pharmaceutical education, practice, industry and other aspects in various Soviet republics (e.g. Armenian, Abchaz Autonomous, Kazakh, Georgian, Baltic republics) based wholly on articles published in the six 1961 and first 2 1962 issues of the Soviet pharmaceutical journal Aptechnaya SSSR, with 21 references therefrom.

1/1

MARES, V.; STEJSKAL, Z.

Gravimetric and polarometric determination of methylene blue and  
brilliant green. Cesk. farm. 11 no.7:354-357 S '62.

1. Statni ustav pro kontrolu leciv, Praha.  
(METHYLENE BLUE) (CHEMISTRY, PHARMACEUTICAL) (DYES)

MARES, Tomas, inz.

Recovery process in semiconductor diodes and its measurement.  
Sdel tech 11 no.4:139-140 Ap '63.

MARES, Svatopluk, inz.

Composite method of price determination in apparatus production.  
Podn org 19 no.3:112-116 Mr '65.

1. Zavody prumyslove automatizace National Enterprise, Prague.

Figure 1E2c(j) 16

The microstructure of polyamide-6 fibers. Karl Schwartassek and R. Marek (Velekerciforschungslab., Brno, Czech.). *Faserforsch. u. Textiltech.* 11, 125-0 (1960).—Eutymically degraded (in vivo; portions of a prothesis fitted into the head of a dog) silicon (polyamide-6) fibers, stained with an iodine-Glauber's salt soin., showed lamellar fragments. Undamaged fibers, stained with the above soin., were found to lose their oily, in 26-7% H<sub>2</sub>SO<sub>4</sub>, at those locations where I was adsorbed; these portions merely swelled in the acid. Owing to the fact that I is adsorbed principally at the outer fiber skin, prepas. of the skin could be prep'd. by staining followed by acid treatment. Undamaged polyamide-6 fibers have a lamellar structure; this was also confirmed by the examm. of the fiber skin prep'd. by Schwartassek's method (CA 49, 92918). The skin is considered to be the outermost lamella. At least 9 lamellar layers were distinguishable in prepas. of degraded fibers. The lamellae were teleoscopically arranged in a concentric manner. This lamellar structure is one of the principal causes for the high abrasion resistance of polyamide-6 fibers, as compared with the fibellar structure of animal, synthetic cellulose, polyester, and acrylic fibers. Cotton has a combination of fibrillar and lamellar structure in that the individual fibrillae have a concentrical lamellar configuration caused by growth rings.

G. J. Enye

5  
J-2d2(NB)

MARES, RUDOLF  
CZECHOSLOVAKIA/Chemical Technology. Chemical Products and Their Application. Artificial and Synthetic Fibers.

H-32

Abs Jour: Referat Zhur-Khimiya, No 5, 1958, 16454

Author : Mares Rudolf

Inst :  
Title : Separation of the Sheath of Viscose Fiber

Orig Pub: Textil, 1956, 11, No 10, 310-312.

Abstract: Verification of the experiments of Slattery on separation of the sheath of viscose fiber by swelling in 18-28% solution of NaOH, failed to yield the desired results, since the elasticity of sheath and core remains the same and they cannot be made to separate on compression. They can be differentiated, under the microscope, by using polarization or staining. On swelling, according to Marshall, in an acid medium (80% solution of HCOOH, 85% + 20% ZnCl<sub>2</sub>, 2 hours at 40°) the sheath

Card : 1/2

MAREŠ, RUDOLF

The isolation of the skin of viscose fibers. Rudolf Mares (Wirkereiforschungsinst., Brno, Czech.). *Prace*, "Textiltech." 7, 493-6 (1950). The method of the isolation of the skin of viscose fibers according to Slattery (Man-Made Textiles 31, No. 372, 11 (1956)) could not be duplicated. A new method for the prep. of the skin from the core of viscose fibers was developed by swelling of transverse sections of viscose fibers in the Marschall bath. (C.A. 35, 2710). The method corresponds to that of the isolation of the skin from the core of polyamide fibers according to Schwertassek (C.A. 49, 9281b). R. E. Brauns

MARES, R.

"Some coal beneficiation installations."

CZECHOSLOVAK HEAVY INDUSTRY, Prague, Czechoslovakia, No. 4, 1959

Monthly List of East European Accessions Index (EEAI), LC, Vol. 8, No. 8,  
August 1959

Unclassified

L 12929-66

ACC NR: AP6005638

SOURCE CODE: CZ/0079/65/007/002/0143/0144

AUTHOR: Dittrichova, J.; Mares, P.

15

ORG: Institute for the Care of Mother and Child, Prague

B

TITLE: Sleep cycles in infancy [This paper was presented at the Third Interdisciplinary Conference on Experimental and Clinical Study of Higher Nervous Functions held in Marianske Lazne from 19 to 23 October 1964.]

SOURCE: Activitas nervosa superior, v. 7, no. 2, 1965, 143-144

TOPIC TAGS: psychology, man, human physiology

ABSTRACT: Three phases of sleep in infants are described. The walking, open eyes, irregular breathing, respiration rate 60/min. The transitory or light sleep, eyes alternately open and closed, respiratory rate 45/min. The deep sleep, eyes closed, respiratory rate 40/min, and after 24th week only 25/min. Phases of deep sleep appear repeatedly in about 50-60 min intervals. Total duration of light sleep decreases from a mean 82% in the 2nd week to 53% in the 24th. In the same period deep sleep increases from 15 to 37%. Orig. art. has: 1 figure. [JPRS]

SUB CODE: 05, 06 / SUBM DATE: none / ORIG REF: 001 / OTH REF: 004

Card 1/14(W)

## CZECHOSLOVAKIA

HRREK, A.; VITOVA, Z.; MARES, P.; Department of Neurophysiology,  
Institute for Research of Development of Children, Faculty of Pediatrics  
(Neurofisiologické oddelení Ustavu výzkumu vývoje dítěte, fak. dětsk. lék.)  
Prague.

"Changes of Cortical Responses to Increased Frequency of Flash Stimuli."

Prague, Ceskoslovenska Fysiologie, Vol 14, No 5, Oct 1965; p 349-350.

Abstract: Study in 372 children from the 7 fetal month to age 15, 0.1 HZ.  
to 50 HZ. Changes were closely correlated with age and are described in  
detail. Graph, 1 Czech and 1 Western reference. Paper presented at the  
15th Physiology Days, Olomouc, 28 May 65.

1/1

L 113770-66 APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001032320015-4"

ACC NR: AP6005627

SOURCE CODE: CZ/0079/65/007/002/0123/0124

19B

AUTHOR: Hrbek, A.; Vitova, Z.; Mares, P.

ORG: Department of Neurophysiology, Research Institute for Child Development, Prague

TITLE: Evolution of visual evoked potentials in man [This paper was presented at  
the Third Interdisciplinary Conference on Experimental and Clinical Study of Higher  
Nervous Functions held in Mariánské Lázně from 19 to 23 October 1964.]

SOURCE: Activitas nervosa superior, v. 7, no. 2, 1965, 123-124

TOPIC TAGS: neurophysiology, man

ABSTRACT: 362 children aged between 7 months of intrauterine life  
and 15 years were examined. Light flashes with frequencies of  
0.1 cps and 50 cps were used. The evoked potentials (EP) can be  
classified into 4 groups. 1. Fetal type in immature infants has a  
long latency and starts with a negative wave. 2. Newborn type in  
slightly immature infants starts with a sharp positive wave, laten-  
cy is 187 msec. 3. Transitory type usually in the 2nd year of life.  
Begins with a negative wave, does not disappear with accelerated  
stimulation, but passes gradually into photic driving. 4. Mature  
type developing progressively from type 3. Latency is about 60 msec.  
Rhythmic afterdischarges follow. Evolution of optic EP in humans is  
substantially more complicated than in animals. [JPRS]

SUB CODE: 06 / SUBM DATE: none / ORIG REF: 004 / OTH REF: 007  
SOV REF: 002  
Card 1/1 4/1

Evaluation of thoriated tungsten...

Z/039/62/023/003/004  
D291/D304

ed carbonization. Where the mechanical properties of the two specimens differ greatly, the stock is classified as low-quality (group 1), where they are similar, the stock can be classified as high-quality (group 2). Cathode filaments of low-quality thoriated tungsten are carbonized as the last procedure of the electron-tube assembly with the aid of naphthalene vapor in the vacuum; cathode filaments of more intricate electron tubes must be made of high-quality material and are carbonized with the aid of benzene vapor in a hydrogen atmosphere. There are 3 figures, 2 tables and 1 Soviet-bloc reference.

ASSOCIATION: TESLA Rožnov, n.p., závod Vršovice (TESLA Rožnov National Enterprise, Vršovice Subsidiary)

SUBMITTED: August 15, 1961

Card 3/3

Z/039/62/023/003/003/004  
D291/D304

Evaluation of thoriated tungsten...

2,200°K), and carbonized again with benzene vapor at 2,200°K for periods ranging from 2.5-25 seconds. The filaments, treated by one of these two methods, were fastened horizontally on two supports spaced at 200 mm, and a little basket was suspended in the middle of the free filament and gradually loaded with buckshot until filament rupture. By weighing the buckshot and measuring the sagging, micro-values could be determined for critical load and elongation. Micro-section surfaces were prepared from each specimen and photomicrographs taken (650 x magnification). While specimens, taken from the first supply, showed rather differing mechanical properties depending on whether they were re-carbonized or not, mechanical properties of all specimens taken from the second supply were similar. The thoriated tungsten could thus be classified into a low-quality group (Supply 1), and a high-quality group (Supply 2). Based on these tests, a simple laboratory method could be developed which permits a quality classification of thoriated tungsten filaments on stock. Two specimens are taken, one of which is tested by the described method after simple carbonization, the other after repeat-

Card 2/3

Z/039/62/023/003/003/004  
D291/D304

AUTHOR: Schneider, Petr, Doctor of Natural Sciences, and  
Mareš, Premysl, Engineer (deceased)

TITLE: Evaluation of thoriated tungsten from the viewpoint  
of its mechanical properties

PERIODICAL: Slaboproudý obzor, v. 25, no. 3, 1962, 151-154

TEXT: The paper describes tests made to investigate the  
mechanical properties of thoriated-tungsten filaments, tabulates the  
test results, and gives a simple method which allows one to classify  
thoriated tungsten stocks as low- or high-quality. The tests were  
performed with 300 mm long and 0.6 mm diameter filaments, taken from  
two different supplies. Prior to the mechanical tests, the speci- ✓  
mens were freed from the protective carbon layer by boiling them in  
25% soda lye. All specimens were then carbonized for 2 minutes with  
benzene vapor in a hydrogen atmosphere at 2,200°K, and some speci-  
mens were subsequently decarbonized (for 2 minutes in hydrogen at

Card 1/3

S/275/63/000/001/009/035  
D469/D308

AUTHORS: Houfek, Stanislav, Koutný, Jiří, Mares, Premysl and Schlicker, Miro

TITLE: Radiator for high-power electron valves and method of its production

PERIODICAL: Referativnyy zhurnal, Elektronika i yeye primeneniye, no. 1, 1963, 19, abstract 1A 93 P (Czech. patent, kl. 21 g, 13/11, 21 g, 14/4, no. 97950, Jan. 15, 1961)

TEXT: The radiator consists of separate loop-shaped sections, filled with thin shaped copper foils, separated from each other by flat copper discs. The sections and discs are soldered to each other and directly to the radiator system. The soldering is made with a hard silver solder in a vacuum oven after excess acids have been reduced with hydrogen; degassing of the anode takes place simultaneously with the soldering. [ Abstracter's note: Complete translation.]

Card 1/1

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Z/037/60/000/005/010/056  
E192/E382

Czechoslovak-made Coaxial Tubes for Ultrashort Waves

mounting the getter. This is important in view of the fact that the getter is mounted at the cathode after carbonisation of the filament in hydrogen; this is done in order to avoid the possibility of damaging the getter. The tubes have a slope of the order of  $0.85 + 1 \text{ mA/V}$  and have a comparatively small output capacitance. The input power to the tubes is very low. In spite of the fact that ceramic tubes are being used very extensively abroad at ultrashort waves, the above  glass-envelope coaxial tubes will be employed in Czechoslovakia for the transmitters of the III television band.

ASSOCIATION: Tesla Rožnov, závod Vršovice, Praha  
(Tesla Rožnov Establishment, Vršovice Factory,  
Prague)

Card 2/2

83379

9,4100

Z/037/60/000/005/010/056  
E192/E382

AUTHOR: Mareš, P.

TITLE: Czechoslovak-made Coaxial Tubes <sup>✓5</sup> for Ultrashort WavesPERIODICAL: Československý časopis pro fysiku, 1960,  
No. 5, p.396

TEXT: Four coaxial tetrodes and two triodes were developed for the Czechoslovak television and frequency-modulated transmitters. The tetrodes are capable of operating at frequencies up to 220 Mc/s, while the triodes go up to 100 Mc/s. The output powers are 0.4, 5, 20 and 50 kW. The tubes are designed for coaxial resonant systems and their output leads are in the form of rings so that the tubes can easily be inserted into the resonant circuits. The output leads or rings are made of kovar. Air cooling is adopted in all the tubes except the 50 kW triode where evaporation-type cooling is used. The cathodes are of thoriated tungsten and are provided with indirectly heated getters made of sintered zirconium. The 20 kW and 50 kW tubes are provided with special cathode rings which allow/<sup>for the</sup> expansion of the individual filaments so that the centre of the cathode is free for

Card 1/2

HRBEK, A.; MARES, P.

Development of the visual system in mature and premature infants. Rev. czech. med. 11 no.2:81-90 '65

1. Department of Neurophysiology, Research Institute of Child Development, Faculty of Paediatrics, Prague.

DITTRICHVA, J.; MARES, P.

Sleep cycles in infancy. Activ. nerv. sup. (Praha) 7 no.2:  
143-144 '65

1. Institute for the Care of Mother and Child, Prague.

MARES, P.

Ontogenetic development of membrane potentials in telencephalic structures in the rat. Physiol. Bohemoslov. 13 no.3:256-262 '64.

1. Institute of Physiology, Czechoslovak Academy of Sciences, Prague; Institute of Research on Child Development, Faculty of Paediatrics, Prague.

HRBEK,A,; MARES,P.

The development of electrophysiological reactivity of CNS  
in children. Activ. nerv. sup. 6 no.1:92-93 '64.

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JILEK, L.; MARES, P.

Effect of body temperature on the resistance of young rats to  
cerebral oligemia. Cesk.pediat.16 no.2:115-121 F '61.

1. Fyziologicky ustav fakulty všeobecného lekarství KU v Praze.  
(BRAIN blood supply)  
(BODY TEMPERATURE)

JILEK, L.; MARES, P.

Effect of external temperature on resistance of young rats to ligation of the carotid arteries. Cesk. fysiol. 7 no.5:486-487 Sept 58.

1. Fysiologicky ustav fak, vseob. lek. KU, Praha.

(TEMPERATURE, effects,

on resist. of young rats to ligation of carotid artery (Cz))

(ARTERIES, CAROTID, physiol.

eff. of temperature on resist. of young rats to ligation  
(Cz))

MARES, O.

Construction yard for youth. p. 1. CONSTRUCTORUL. ( Ministerul  
Constructiilor si Industriei Materialelor de Constructii si Uniunea  
Sindicatelor de Salariati din Intreprinderile de Constructii) Bucuresti.  
Vol. 7, no. 295, Sept. 1955

So. East European Accessions List      Vol. 5, No. 9      September, 1956

MARES, Miroslav

Unified classification of machine industry products.  
Podn org 18 no. 3:97-101 Mr '64.

1. Technical and Organizational Research Institute of  
the Machine Industry.

MARES, Miroslav

"Development of power resources in Czechoslovakia" by  
L. Kopec. Reviewed by Miroslav Mares. Podnik organizace 17  
no. 3:143 Mr '63.

MARES, M.

Apparatus for determining the separability of flax fibers. p. 32.

(Textil. Vol. 12, no. 1, Jan. 1957. Praha, Czechoslovakia)

SO: Monthly List of East European Accessions (EEAL) LC, Vol. 6, no. 10, October 1957. Uncl.

MARES, L.

Considerations on the construction and operation of tractors KD-35 and Utos-2 and the necessity to produce new types of tractors for our agriculture.

p. 24 (Mecanizarea Si Electrificarea Agriculturii) Vol. 4, nos. 365-366, 368-371; Oct.-Nov. 1957, Bucuresti, Romania

SO: MONTHLY INDEX OF EAST EUROPEAN ACCESSIONS (EEAI) LC, VOL. 7, NO. 1, JAN. 1958

MARES L

CL

The influence of nonconverted reducing substances upon  
the formation of color during the heating process.  
March, Lity Cukrovar, 65, 12-16(1948).—With a  
Sander's objective colorimeter M. measured the color  
formed in a filtered soln. of raw sugar when heated at 80°  
for 3 hrs. and again when heated in the presence of alkalies,  
 $H_2O_2$ , Mair's salt, invert sugar, and dienols; the latter  
represent decompo. products of aldoses and have a high  
reducing power. The prepns. of the dienols appeared in  
Lity Cukrovar, 65, 103(1948). From the rate of forma-  
tion of colored substances it is apparent that invert sugar  
forms a certain amt. of color but it will also yield twice as  
much color when it is heated in the presence of dienols in  
an alk. raw sugar soln. The graphs indicated that the  
color of heated alk. sugar juices is formed not only from  
invert sugar but also from its decompo. products. A  
study of the reaction of the decompo. products of invert  
sugar will help elucidate the formation of color in alk.  
sugar solns. during heating. Frank Marek

Frank Marek

AM-SEA METALLURGICAL LITERATURE CLASSIFICATION

FROM SYMBOL

THICK LINE ONE

SECTION

FROM SYMBOL

WILLISTON

MARES, K.: CELNY, J.

Exhibit in Amsterdam. 1.276. (Svet Motoru. Praha. Vol. 11, no. 9, Apr. 1957.)

SO: Monthly List of East European Accessions (EEAL) LC. Vol. 6, no. 7, July 1957. Uncl.

MARES, K.

"Performance of motorists at the 1st National Spartakiad." p. 294.

SVET MOTORU. (Svaz pro spolupraci s armadou). Praha, Czechoslovakia,  
Vol. 9, No. 10, May 1955.

Monthly list of East European Accessions (EEAI), LC, Vol. 8, No. 8,  
August 1959.  
Unclu.

MARES, J.

Blood coagulation and various haemocagulating factors during  
the menstrual cycle. Cesk. gynek. 30 no.4:244-248 My '65.

I. Ustav pro peci o matku a dite v Praze (reditel - doc. dr.  
J. Horáky, DrSc.).

MARES, Josef

Uterovesical fistulae. Cesk.gyn. 25[39] no.7:541-542 8 '60.

1. Ustav pro peci o matku a dite v Praze-Podoli, red. doc. dr.  
M.Vojta, zaslouzily lekar CSSR  
(VESICAL FISTULA case reports)  
(UTERUS dis.)

PRESL, Jiri, C.Sc.; HORSKY, Jan, C.Sc.; HENZL, Milan; MARES, Josef

On the problem of the role of various hemocoagulation factors  
in cessation of functional uterine hemorrhage with stilbestrol.  
Cesk.gyn.26[40] no.1/2:107-112 F '61.

1. Ustav pro peci o matku a dite v Praze, reditel docent MUDr.  
Miroslav Vojta, zaslouzily lekar CSSR.  
(UTERINE HEMORRHAGE ther)  
(DIETHYLSTILBESTROL ther)  
(BLOOD COAGULATION physiol)

HULE, Doc.W.; CECH, J.; DRASNAK, J.; MARES, J.

Latent blood coagulation disorders in sterile women. Cesk.gyn.  
25[39] no.3:232-234 1960.

1. Laborator pro vysetrovani poruch koagulace pri u.l. FN. Brno,  
predn.doc.dr. V. Hule. UPMO, Praha-Podoli, reditel doc.dr. M. Vojta.  
(STERILITY FEMALE blood)  
(BLOOD COAGULATION)

KRAUS, Josef, inz. CSc.; MARES, Jaroslav, inz.

A new method of laying foundations of railroad beds. Zel nap tech  
12 no.10:261-264 '64.

MARES, Jaroslav

Forecast of air transportation development and the use of  
supersonic aircraft. Letecky obzor 8 no. 6;165-168 Je '64.

MARES, Juroslav, inz.; KRAUS, Josef, inz. o.s.

Separate concreting of bored piles. Inz Stavby 13 nov. 55  
59 F '65.

1. Stavby silnic a zeleznic National Enterprise, Prague (for  
Mares). 2. Research Institute of Transportation, Prague (for  
Kraus).

MARES, Jaroslav

Moon flight and dollars. Letecky obzor 7 no.2:39 F '63.

FISCHER, J.; MARES, J.

Remarks on the elimination of obliteration using a patch technic.  
Rozhl. chir. 44 no.7:470-475 Jl '65.

1. J. cirurgicka klinika lek. fak. Palackeho University v  
Olomouci (prednosta prof. dr. V. Rapant, DrSc.).

MARES,J.

Plastic materials in gynecology. Cas. lek. cesk. 103 no.20:  
100-104 15 My'64

1. Ustav pro peci o matku a dite v praze; reditel: doc. dr.  
M.Vojta.

MARES, J.

Bleeding and some coagulation factors in the course of the menstrual cycle. Cas. lek. cesk. 102 no.12:52-56 22 Mr '63.

1. Ustav pro peci o matku a dite v Praze-Podoli, reditel doc. dr.

M. Vojta.

(MENSTRUATION) (BLOOD COAGULATION FACTORS)  
(MENORRHAGIA) (METRORRHAGIA) (PROTHROMBIN TIME)

MARES, J.

"Assembled construction of the superstructure of the Orlik Water-Power Plant."

INZENYRSKE STAVBY, Praha, Czechoslovakia, Vol. 7, No. 6, June 1959.

Monthly List of East European Accessions (EFAI), LC, Vol. 8, No. 9, September 1959.

Unclassified.

MARES, J.

New methods of determining relief energy. p. 82.  
(Kartograficky Prahled, Vol. 11, no. 2, 1957. Praha, Czechoslovakia)

SO: Monthly List of East European Accessions (EEL) LC, Vol. 6, no. 10, October 1957. Uncl.

MARES, J.

Determination and representation of the density of flow in Czechoslovakia, p. 45.  
(Kartograficky Prehled, Vol. 11, no. 2, 1957. Praha, Czechoslovakia)

S0: Monthly List of East European Accessions (EEAL) IC, Vol. 6, no. 10, October 1957. Uncl.

VIPES, J.; VETRUPEC, C.

"Changes in the industry of Central and Northern Bohemia during the last  
thirty years."

SPODNÍK, Praha, Czechoslovakia, Vol. 64, No. 2, 1959

Monthly list of East European Acquisitions Index (EEAI), Library of Congress,  
Vol. 9, No. 9, August, 1959

Unclassified

MARES, J. - Kridla Vlasti No. 13, June 1955

Easy and efficient fueling. p.293.

SO: Monthly List of East European Accessions (EEAL), LC, Vol. 4, No. 9, Sept. 1955, Uncl.

MARES, J.

Increase in the reticulocyte count in the peripheral blood  
of Rh sensitized pregnant women as an early sign of danger  
to the fetus by hemolytic disease. Cesk. gynek. 30 no.1:134-  
139 Mr'65.

1. Ustav pro peci o matku a dite v Praze (zat. reditel: doc.  
dr. J. Horsky, DrSc.).

L 65053-62  
ACCESSION NR: AF5009471

ENCLOSURE: 01

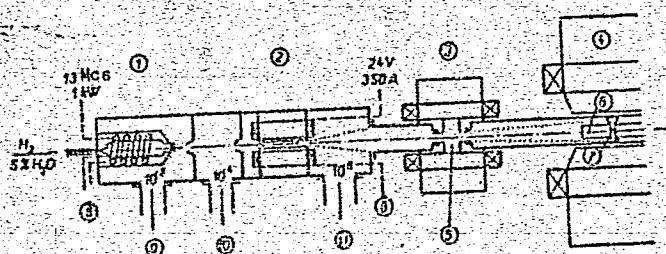


Fig. 1. Principal scheme of the source of polarized ions for the cyclotron of the Nuclear Research Institute: 1 — dissociator, 2 — separation quadrupole magnet, 3 — adiabatic magnet, 4 — cyclotron U-120, 5 — cavity resonator, 6 — duants, 7 — ionization, 8 — cooling, 9, 10, 11 — oil diffusion pumps 1000, 500, 1500 lps respectively.

Mark  
Card 4/4

1. 65053-65

ACCESSION NR: AT5009471

SUBMITTED: 000064

ENCL: 01

SUB CODE: NP

NR REF SOV: 000

OTHER: 010

Card 3/4

L 65053-65

ACCESSION NR: AT5009471

3

enclosure. The high-frequency method described earlier by M. K. Craddock (Basel Conference, 1959) is used for the dissociation. Approximately 100% polarization of protons and approximately 66% polarization of deuterons is possible. Optimum yields of  $4 \times 10^{17}$  atoms per second are obtainable at a pressure 0.25 mm Hg and a frequency of 13.5 Mc. The atomary hydrogen beam is split into components by a quadrupole magnet, the construction of which is described. The atomary beam is ionized in the center of the cyclotron by means of an inverse magnetron, an experimental model of which was built and tested in the laboratory. Work on the method of ionizing the atomary ray is not yet finished. The inverse magnetron was described by Garreta et al. (Nucl. Inst. Methode v. 17 (1962) 123). Orig. art. has: 6 figures, 3 formulas, and 1 table.

ASSOCIATION: Nuclear Research Institute, Czechoslovak Academy of Sciences, Rez.

44/55

Card 2/4

L 65053-65 EWT(m)/EPA(w)-2/EWA(m)-2 IJP(c)

ACCESSION NR: AT5009471

Z/0000/64/000/000/0248/0253

AUTHORS: Kult, K., <sup>44,cc</sup> Bejsovec, V., <sup>w,cc</sup> Mares, J., <sup>44,cc</sup> Trejbal, Z., <sup>44,cc</sup> Marek, M.,  
Vincour, J. <sup>44,cc</sup>

TITLE: Source of polarized ions for cyclotron

SOURCE: Conference on Low Temperature Physics and Techniques. 3d,  
Prague, 1963. Physics and techniques of low temperatures; proceedings of the conference. Prague, Publ. House of the Czechoslovak  
Academy of Sciences, 1964, 248-253

TOPIC TAGS: particle accelerator, ion polarization, hydrogen atom reaction

ABSTRACT: The authors describe a source of polarized ions now being built in order to extend the experimental possibilities of the cyclotron of the Nuclear Research Institute of the Czechoslovak Academy of Sciences. A diagram of the source is shown in Fig. 1 of the

Card: 1/4

MARES, J.

New methods for window-and balcony-door fittings. p. 11

POZEMNI STAVBY. (Ministerstvo stavebnictvi)  
Praha, Czechoslovakia Vol. 7, No. 1, Jan. 1959

Monthly List of East European accession, (EAI), LC, Vol. , No. 12, Dec. 1959  
Uncl.

MARES, J.

Built-in cabinets. p. 244. POZEMNI STAVBY. (Ministerstvo stavebnictvi)  
Praha. Vol. 3, no. 6, June 1957.

SOURCE: East European Accessions List (EEAL), Library of Congress,  
Vol. 4, no. 12, December 1957.

DREVO,M.; ZAVADOVA,H.; MARES,I.; ADAM,E.

Use of the neutralization test and the complement fixation re-action for demonstration of antibodies against measles. Cas. lek. cesk. 104 no.2:47-49 15 Ja '65

1. Ustav ser a ockovacich latek, Praha, (reditel MUDr. J.Malek).

ADAM, E.; STANINEC, M.; KUBATOVA, E.; HALIK, J.; MORAVA, V.; MARES, I.; ZAVADOVA, H.; DREVO, M.

Vaccination against measles with live vaccine in a pediatric department. Cas. lek. cesk. 104 no.2:38-46 15 Ja '65

1. Ustav ser a ockovicich latok, Praha (reditel - MUDr. J. Malek); Infecni klinika, Praha-Bulovka (prednosta - prof.dr. J. Prochazka, DrSc.) a Detska psychiatricka lecебna, Oparany (reditel - MUDr. V. Vojtik).

MARES,I.; MREVO, M.

Current status of active measles prevention. Cas. lek. cesk.  
104 no.2:33-38 15 Ja '65

l. Ustav ser a ockovacich latek, Praha (reditel MUDr.J.Malek).

MARES, I.; DREVO, M.

Cultivation of measles virus in dog kidney cell cultures.  
Acta virol. (Praha) [Eng.] 9 no.2:152-159 Mr'65.

1. Institute of Sera and Vaccines, Prague, Czechoslovakia.

RAPANT, Vlad.; PEGR&HJM, R. [Pehrim, R.]; MAPESH, I. [Nares, I.]

Technical and tactical remarks concerning retrosternal esophagoplasty with the description of the method for approaching from the retrosternal to the visceral space of the neck.  
Khirurgia 40 no.9:70-74 S '64 (MIRA 18:2)

1. 1-ya khirurgicheskaya klinika (zav. - prof. V.M. Rapant)  
i Anatomicheskiy institut (zav. - dotsent I. Zrzavy) Universiteta imeni Palatskogo, Olomouts, Chekhoslovatskaya Sotsialisticheskaya Respublika.

MARES, I.; DREVO, M.; SLONIM, D.

A study on the prevention of poliomyelitis virus adsorption on Seitz filter discs. Acta virol. Engl. Ed. Praha 5 no.4:220-227 Jl '61.

1. Institute of Sera and Vaccines, Prague.

(POLIOMYELITIS VIRUS culture)

SLONIM, D.; MARES, I.; DREVO, M.; CINNEROVA, O.; MICHL, J.; technical assistance:  
HOLATOVA, M.; KOUDELKOVA, M.; KRAUSOVA, V.; SKUBAL, J.; ZLABOVA, Z.

Some experiences with the preparation of inactivated poliomyelitis  
vaccine in Czechoslovakia. IV. The preparation of the vaccine. Acta  
virologica, Ed. Praha 5 no. 3: 178-187 My '61.

1. Institute of Serum and Vaccines, Prague.

(POLIOMYELITIS immunol)

SLOWIM, Dimitrij; MICHL, Jiri; CIMERROVA, Olga; MARES, Ivo; DREVO, Milan;  
za spoluprace: STEPANOVA, E.; HAJKOVE, H.; JARKOVE, A.

Certain experiences with the preparation of the inactivated polio-  
myelitis vaccine in CSR. II. Preparation of the medium. Cesk.  
epidem.mikrob.immun. 9 no.2:111-121 Mr '60.

(POLIOMYELITIS immunol.)  
(VACCINES)

SLONIM, Dimitrij; MICHL, Jiri; MARES, Ivo; CINEROVA, Olga; DREVO, Milan

Certain experiences with the preparation of inactivated poliomyelitis vaccine in Czechoslovakia. I. Glass, rubber, stainless material. Cesk. epidem. mikrob. imun. 8 no.5:289-298 Sept 59.

1. Ustatv ser a ockovacich latek v Praze.  
(POLIOMYELITIS, immunol.) (VACCINES)

DIMOFTE, C.; MARES, I.

Some experimental data on certain hydrogeochemical prospectings of sulfide layers. Analele geol geogr 16 no.3:11-22 Jl-Ag '62.

SRBEK, F.; MARES, I.

"Building stoneware from the overlaying clay of the lignite mining  
district in Northern Bohemia."

p. 440 (Stavivo) Vol. 35, no. 11, Nov. 1957  
Prague, Czechoslovakia

SO: Monthly Index of East European Accessions (EEAI) LC. Vol. 7, no. 4,  
April 1958

CZECHOSLOVAKIA

MARES, F; CHVALOVSKY, V

Institute for Chemical Process Fundamentals, Czechoslovak Academy of Sciences, Prague-Suchdol - (for both)

Prague, Collection of Czechoslovak Chemical Communications  
No 1, January 1967, pp 382-397

"Organosilicon compounds. Part 50: Pyrolysis of phenyl-dimethylsilane."

MARES, F.

CZECHOSLOVAKIA

HREBIEJS, J.; MARES, F.; CIVALOVSKY, V.

Institute for Chemical Process Fundamentals, Czechoslovak Academy  
of Sciences, Prague (for all)

Prague, Collection of Czechoslovak Chemical Communications, No 2,  
Feb 1966, pp 586-601

"Organ-silicon compounds. Part 43: The effect of oxygenous substitu-  
tutes on alkaline solvolysis of organo-silicon hydrides."

Z/009/63/000/001/001/006  
E112/E435

Preparation of zone-refined ...

germanium is subsequently converted into ingots by melting in a current of nitrogen. The maximum purity of the germanium, assayed by resistance measurements, is 99.999%. For use in semiconductors the concentration of contaminants has to be reduced below  $10^{-7}\%$  and this is done by zone refining which was carried out with 35 to 50 cm long ingots in silica tubes in an atmosphere of H<sub>2</sub> or N<sub>2</sub>. A final assay of purity, carried out at -18°C, showed that about 75% of the length of the ingot has a satisfactory purity. There are 6 figures and 1 table.

ASSOCIATION: Spolana n.p., závod J. Fučíka, Kaznějov  
(Spolana n.p., J. Fučík Works, Kaznějov)

Card 2/2

Z/009/63/000/001/001/006  
E112/E435

AUTHORS: Belada Evžen, Linhart Milan, Mareš František

TITLE: Preparation of zone-refined germanium in Czechoslovakia

PERIODICAL: Chemický průmysl, no.1, 1963, 14-18

TEXT: The production is described of pure germanium from two types of raw materials: 1) flue-dust, containing more than 0.2% Ge in the form of the oxide or sulphide and converted to  $\text{GeCl}_4$  by distillation with HCl; 2) germanium wastes (from zone melting etc) converted to  $\text{GeCl}_4$  by treatment with ferric chloride or by chlorination at 350 to 450°C. The obtained germanium tetrachloride is purified by treatment with HCl and  $\text{H}_2\text{O}_2$  (to remove arsenic) and two fractional distillations, the last one from a silica glass apparatus. Germanium tetrachloride is converted to the dioxide by hydrolysis with chemically pure water (redistilled from silica glass) in a cooled glass vessel. The precipitated  $\text{GeO}_2$  is filtered off, washed with distilled water and dried in a silica drier at 150 to 200°C. The dioxide is then placed on graphite boats in silica tubes and reduced to powdered germanium by heating to 650°C in a current of purified hydrogen. The metallic

Card 1/2

MARES, F.; ROCEK, J.

Oxidation with chromium (VI) oxide. Part 12: Oxidation of carboxylic acids; influence of an electro-negative substituent on the oxidation course. Coll Cz Chem 26 no.9:2389-2400 '61.

1. Institute of Organic Chemistry and Biochemistry, Czechoslovak Academy of Sciences, Prague.

(Oxidation) (Chromium oxide) (Acids)

MARES, F.; ROCEK, J.; SICHER, J.

The chromic acid oxidation of cycloparaffins; correlation between reactivity and thermochemical strain, and notes on reaction mechanism. Coll. Cz. Chem. 26 no.9:2355-2369 '61.

1. Institute of Organic Chemistry and Biochemistry, Czechoslovak Academy of Sciences, Prague.

(Chromic acid) (Cycloalkanes)

MARES, F.

V Oxidations with chromium(VI) oxide. VIII. Oxidation of straight-chain paraffins. An example of linear dependence of reaction rate on the number of reactive groups. J. Rodek and E. Mares (Českoslov. akad. věd, Prague). Collection Czechoslov. Chem. Commun. 24, 2741-7 (1959) (in English); cf. C.A. 53, 5117k.—The rate of oxidn. of a homologous series of paraffins is directly proportional to the no. of CH<sub>2</sub> groups. The rate of any member can be calcd. from the expression  $k_o = (n - 2) \times k_{CH_2}$ , where n is the no. of C atoms and  $k_{CH_2}$  the rate const. for the oxidn. of a single CH<sub>2</sub> group. The rate of oxidn. of Me groups is at least by an order lower than that of CH<sub>2</sub> groups. The values of  $k_{CH_2}$  calcd. from the results for each individual hydrocarbon from the above equation are on the av.  $5.73 \times 10^{-3}$  at 50° for 0.2M H<sub>2</sub>SO<sub>4</sub> in 90% AcOH. Relationships between the reactivity of a group and its position on a linear chain and the character of the reaction are discussed. The authors suggest that the rate-detg. process is the removal of a H from the hydrocarbon as hydride ion with the formation of an alkyl cation. L. K. Schaeck

CFK  
VII

3  
2 gel (ns)

"APPROVED FOR RELEASE: 06/20/2000

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CZ/8-52(82)-10-12/39

Experiments on the Synthesis in the alloLupinane Series. V. Synthesis  
of alloLupinine from 8-(2-Pyridyl)valeric Acid.

1-(4-pyridyl)pentanone-(4) with selenium oxide under  
various conditions is tabulated (Table 1). There are  
6 References: 4 Czech, 1 German, 1 English.

ASSOCIATION: Katedra organické chemie, Vysoká škola chemicko-technologická, Praha (Department for Organic Chemistry,  
Chemical Institute for Chemical Technology, Prague)

SUBMITTED: 17th January, 1958

Card 2/2

CZ/8-52(82)-10-15/39

AUTHCRS: Mares, F and Hudlicky, M.

TITLE: Experiments on the Synthesis in the allo Lupinane Series.  
V. Synthesis of allo-Lupinine from  $\delta$ -(2-Pyridyl)valeric Acid. (Synthetické pokusy v řadě alloLupinové.V.  
Synthesa alloLupininu z kyseliny  $\delta$ -(2-pyridyl)valerove).PERIODICAL: Chemické Listy, 1958, Vol.52(82), Nr 10, pp 1933 - 1937,  
(Czechoslovakia)ABSTRACT: The synthesis of 1-(2-pyridyl)pentonane-(4) and  $\delta$ -(2-pyridyl)valeric acid was described in a previous publication (Chemické Listy, 1958, Vol.52, page 1608).  
J. Trojanek and Z. Vesely suggested the use of these compounds during the synthesis of allolupinane and allo-lupinine. The hydrobromide of  $\delta$ -(2-pyridyl)valeric acid was brominated and the quaternary 1,2,4-carboxytetra-methylene pyridinium bromide obtained. This compound was hydrogenated to the hydrobromide of quinoliciidine-4-carboxylic acid and its ester reduced to allolupinene. Details of the preparation of the various intermediate compounds, their boiling point and percentage composition are given. The reactions of the equivalent amounts of

Card 1/2

2

Country : CZECHOSLOVAKIA  
Category : Inorganic Chemistry. Complex Compounds

Abs. Jour. : Ref Zhur-Khim, 1959, No 5, 14921

Author : Cejka, J.; Mares, F.

Institut. : -

Title : Isolation of Silicotungstic Acid without the Use of Ether

Orig Pub. : Chem. listy, 1958, 52, No 4, 738

Abstract : To prepare  $H_4SiW_{12}O_{40} \cdot 7H_2O$ , HCl ( $d = 1.18$ ) was added to an aqueous solution of  $Na_2WO_4 \cdot 2H_2O$  and  $Na_2SiO_3$  at  $80^\circ$ . Unreacted silica gel was filtered and the filtrate evaporated until dryness. The residue after evaporation was extracted by boiling alcohol which contained 16% HCl. By evaporating the alcoholic extract, silicotungstic acid with a yield of 83.5% was obtained.-- V. Buzicka

Card: 1/1

*H. J. Hudlicki + Frints - K. A. H. G.*

hrs. at room temp., and extg. with  $\text{Et}_2\text{O}$  and  $\text{C}_6\text{H}_6$  yielding 7 g. crystals, m. 158° (dl. EtOH), apparently of 1-( $\alpha$ -pyridyl)-4-phenyl-5-hexen-4-one. Degradation of III (5 g.) with NaOBr by the usual procedure gave, when crystd. ( $\text{C}_6\text{H}_6$ ), 1.15 g.  $\gamma$ -( $\alpha$ -pyridyl)butyric acid, m. 84°, and 1.02 g. II. Other modifications of the Willgerodt reaction having failed, a mixt. of 70 g. III, 16 g. powd. S, and 80 g. morpholine was divided into 14 glass tubes (5 g. each), heated 3 hrs. to 200°, the combined contents boiled 12 hrs. with 210 ml. 50%  $\text{H}_2\text{SO}_4$  at 135°, the cooled reaction mixt. alkalized, 53 g. black sticky material filtered off, the filtrate extd. with  $\text{CHCl}_3$ , the nq. soln. decolorized with C, neutralized to pH 5, evapd. to dryness, the residue dried by azeotropic distn. with  $\text{C}_6\text{H}_6$ , and extd. with  $\text{C}_6\text{H}_6$ , to give 18 g. 5-( $\alpha$ -pyridyl)-valeric acid (IV), m. 97.5° ( $\text{C}_6\text{H}_6$ ). IV boiled 3 hrs. in an eq. soln. with Raney Ni, the soln. filtered, and hydrogenated over  $\text{PtO}_2$  gave 3-( $\alpha$ -pyridyl)valeric acid, m. 177° (EtOH- $\text{Et}_2\text{O}$ ). L. J. Velanck

MAREŠ, FRANTIŠEK

Distr: 4E3d/4E2c(j)

Reactions of 1,3-dichloro-2-butene. V. Preparation of beta-(pyridylalkyl)carboxylic acids. Miroslav Hudlický and František Mareš (Tech. Univ., Prague). *Chem. listy* 51, 1875-80 (1957); cf. *C.A.* 51, 6544n. Adding dropwise to an  $\text{Et}_2\text{O}$  soln. of PhLi (from 36 g. Li, 628 g. PhBr, and 3200 ml.  $\text{Et}_2\text{O}$ ) at normal temp., under stirring, 373 g.  $\alpha$ -picoline;  $\text{Et}_2\text{O}$  at normal temp., under stirring, 373 g.  $\alpha$ -picoline; boiling the dark brown mixt. 1 hr., cooling, adding 600 g.  $\text{CHCl}_3\text{CH}_2\text{CCl}_3$ , refluxing 2 hrs., cooling, decompr. the mixt. with 800 ml.  $\text{H}_2\text{O}$ , extg. the aq. layer with  $\text{Et}_2\text{O}$ , combining the ext. with the  $\text{Et}_2\text{O}$  layer, evapg.  $\text{Et}_2\text{O}$ , and distg. the residue *in vacuo* gave 272 g. mixt. contg. the original components, which could be recovered, and 248 g. crude I. (a-pyridyl)-4-chloro-3-pentene (I), m.p. 119-40°. This was dissolved in dil. HCl (1:1), the sept. PhLi filtered off, the filtrate extd. with  $\text{C}_6\text{H}_6$ , the aq. layer alkalinized with NaOH, extd. with  $\text{CHCl}_3$ , and the  $\text{CHCl}_3$  ext. distd. to give 103 g. pure I, b.p. 118-21°,  $\text{d}_{4}^{20}$  .702,  $n_{D}^{20}$  1.5261; picrate, m.p. 98-9° ( $\text{BzOH}$ ). I (1 g.) ozonized at -10° in  $\text{CHCl}_3$  and the soln. and the ozoneide heated with AcOH and  $\text{H}_2\text{O}$  2 hrs. at 70° gave 0.08 g.  $\beta$ -(a-pyridyl)propanoic acid (II), m.p. 139.5-40° ( $\text{C}_6\text{H}_6$ ). Treating 100 g. I with 400 ml. 81%  $\text{H}_2\text{SO}_4$  at 60° for 6½ hrs. while stirring and passing through a stream of air, pouring the product on ice, neutralizing with NaOH, sepr. the aq. layer, extg. the aq. layer with  $\text{CHCl}_3$ , and distg. the  $\text{CHCl}_3$  layer gave 134.9 g. 1-(a-pyridyl)-4-pentanone (III), b.p. 128-31°,  $n_{D}^{20}$  1.6081; picrate, m.p. 110.5-11° ( $\text{BzOH}$ ), characterized by condensation (5 g. III) with 3.8 g. BzH by stirring in 12 ml.  $\text{EtOH}$ , 4 ml.  $\text{H}_2\text{O}$ , and 3 ml. 10% NaOH 30

MARES, FRANTISEK

✓ 3-Hydroxyquinaline. Vlastav Lertka and František Mares. Czech. 89,127. Jan. 15, 1957. Replacing in the Skraup synthesis o-anisolephenol (I) and  $\beta$ -nitrophenol (II) by an equiv. amt. of their sulfonyl acid derivs. or by a combination of these with I and II gives a reaction which has a much smoother and safer course, giving yields of 71%. The sulfo groups are easily split off under the reaction conditions. Mixing 85.5 kg. 3,4-H<sub>2</sub>N(HO)C<sub>6</sub>H<sub>4</sub>SO<sub>3</sub>H acid, 39.4 kg. 3,4-O<sub>2</sub>N(HO)C<sub>6</sub>H<sub>4</sub>SO<sub>3</sub>H, 110 kg. concd. H<sub>2</sub>SO<sub>4</sub>, 102 kg. glycerol, and 1 kg. cryst. FeSO<sub>4</sub>, heating the mixt. under stirring to 142° for 4-6 hrs., cooling, alkalinizing with NaOH, and steam-distg. the product give 68-71% 3-hydroxyquinaline.

L. I. Urbánek